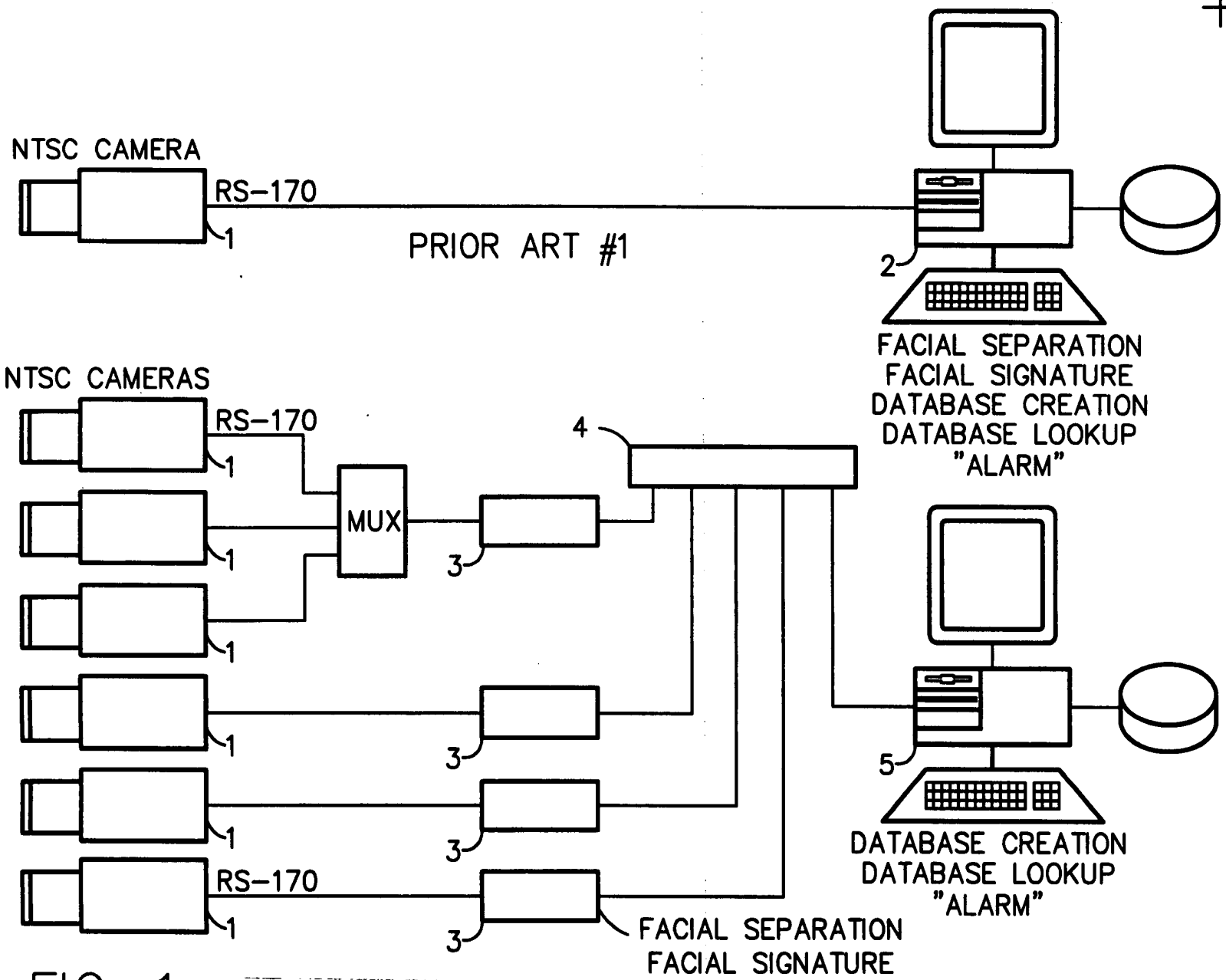

NTSC CAMERA
RS-170
1
PRIOR ART #1
2
FACIAL SEPARATION
FACIAL SIGNATURE
DATABASE CREATION
DATABASE LOOKUP
"ALARM"
NTSC CAMERAS
RS-170
1
MUX
3
4
RS-170
FACIAL SEPARATION
FACIAL SIGNATURE
5
DATABASE CREATION
DATABASE LOOKUP
"ALARM"

FIG. 1

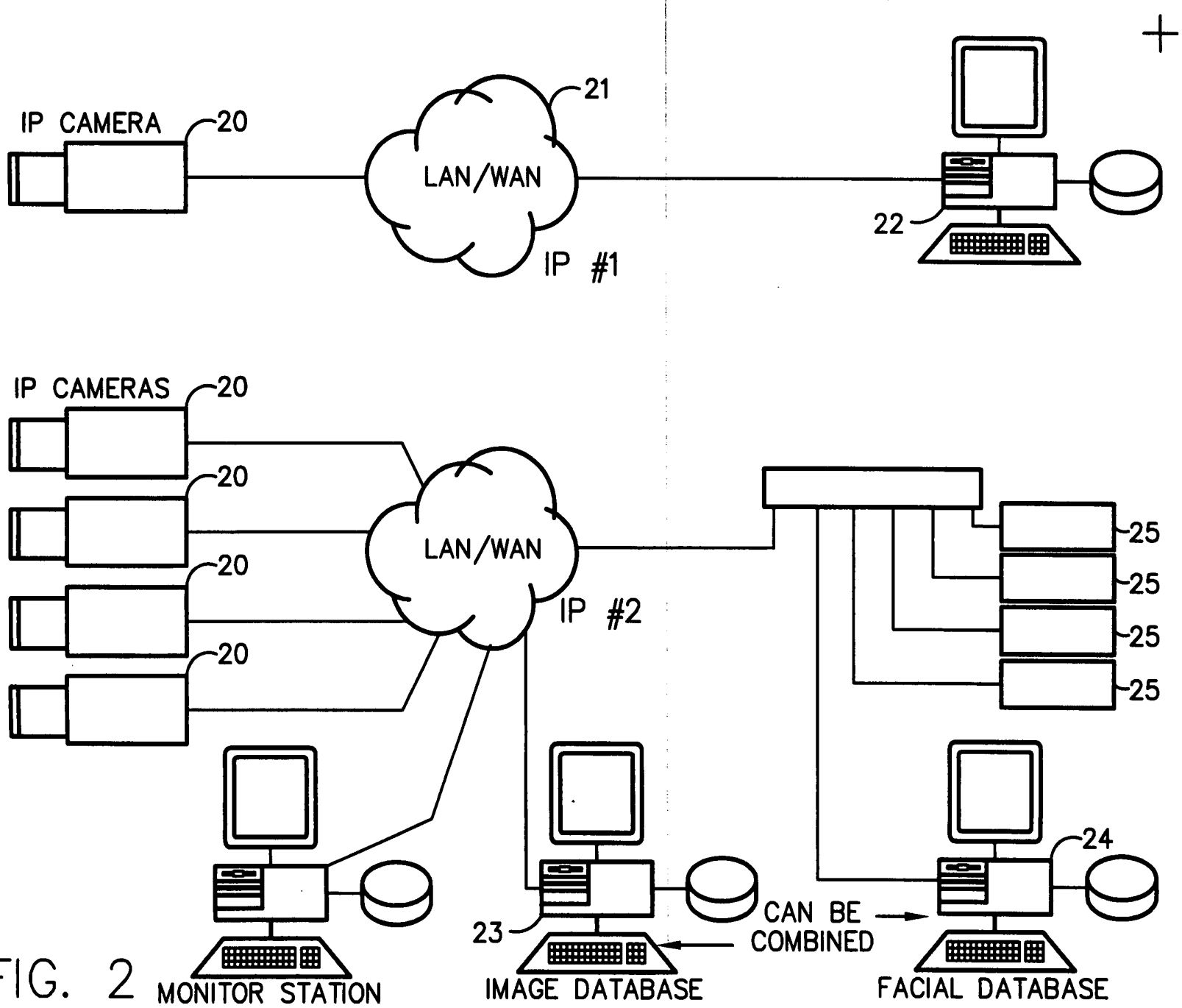

IP CAMERA
20
LAN/WAN
21
IP #1
22
IP CAMERAS
20
20
20
20
LAN/WAN
IP #2
25
25
25
25
24
CAN BE
COMBINED
23
MONITOR STATION
IMAGE DATABASE
FACIAL DATABASE

FIG. 2

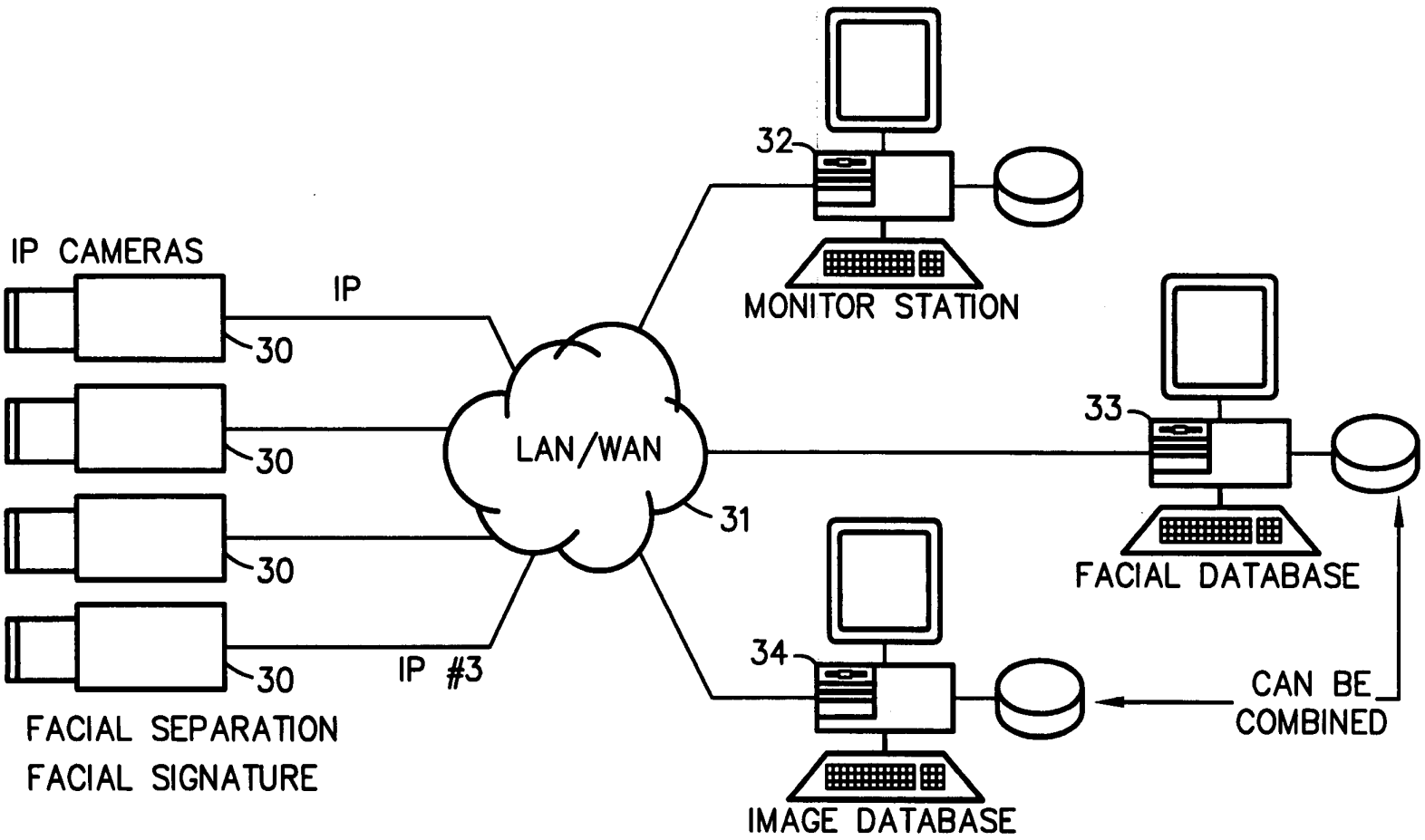

IP CAMERAS
IP
30
30
30
30
LAN/WAN
31
IP #3
FACIAL SEPARATION
FACIAL SIGNATURE
32
MONITOR STATION
33
FACIAL DATABASE
34
IMAGE DATABASE
CAN BE
COMBINED

FIG. 3

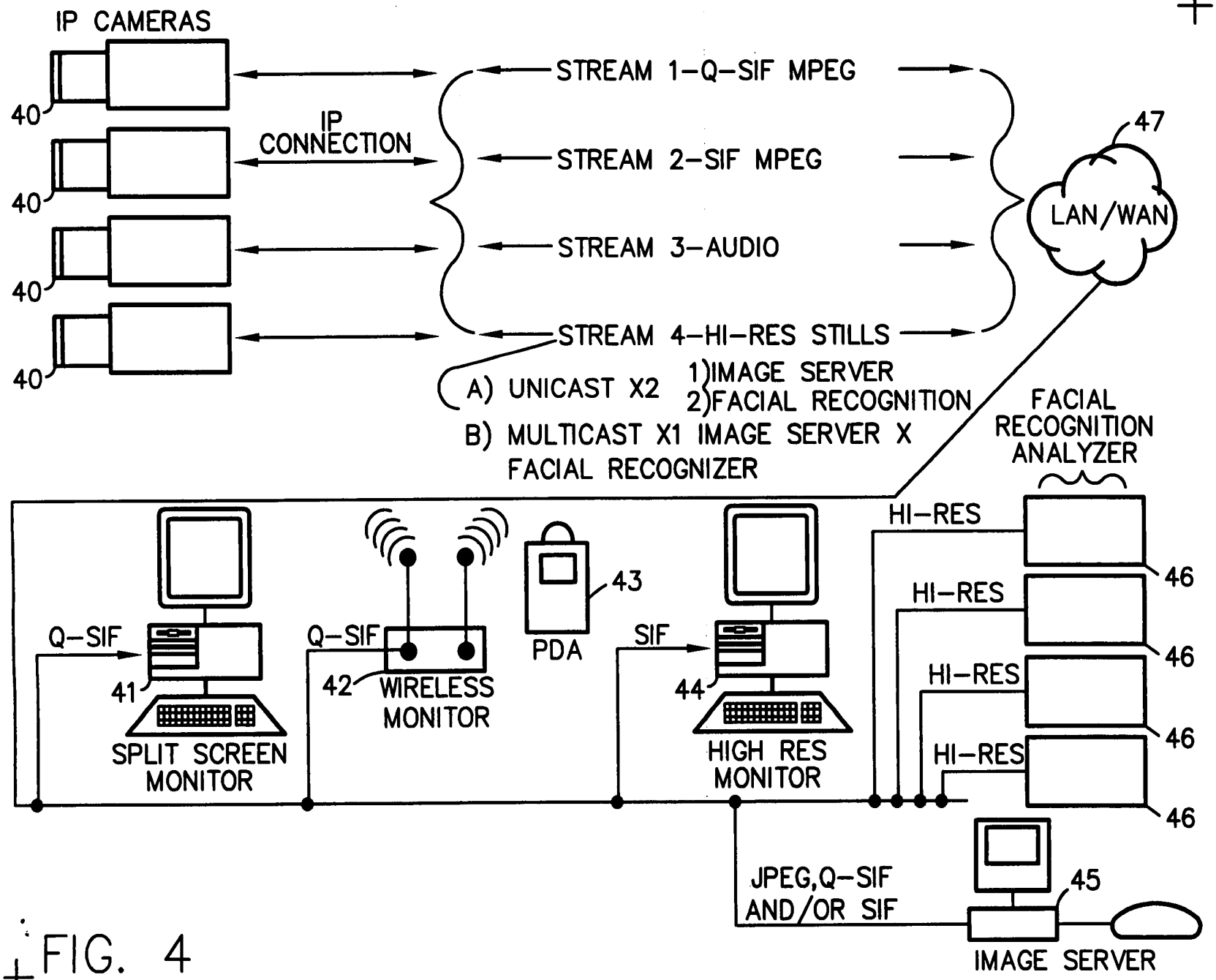

IP CAMERAS
40
40
40
40
IP CONNECTION
STREAM 1-Q-SIF MPEG
STREAM 2-SIF MPEG
STREAM 3-AUDIO
STREAM 4-HI-RES STILLS
47
LAN/WAN
A) UNICAST X2
1)IMAGE SERVER
2)FACIAL RECOGNITION
B) MULTICAST X1 IMAGE SERVER X
FACIAL RECOGNIZER
FACIAL RECOGNITION ANALYZER
HI-RES
HI-RES
HI-RES
HI-RES
46
46
46
46
Q-SIF
41
SPLIT SCREEN MONITOR
Q-SIF
42
WIRELESS MONITOR
43
PDA
SIF
44
HIGH RES MONITOR
JPEG,Q-SIF AND/OR SIF
45
IMAGE SERVER

FIG. 4

IMAGE DATABASE

IMAGE ID#	DATE/TIME
	LOCATION
	CAMERA #
	IMAGE FILE URL
	DETECTED FACIAL SIGNATURE #1
	DETECTED FACIAL SIGNATURE #2
	DETECTED FACIAL SIGNATURE #3
	" " "
	" " "
	DETECTED FACIAL SIGNATURE #LAST

SIGNATURE DATABASE

FACIAL SIGNATURE#	NAME
	AGE
	HEIGHT
	ALIASES
	MUGSHOT URL
	BIO FILE URL
	IMAGE ID #1
	IMAGE ID #2
	IMAGE ID #3
	" "
	" "
	IMAGE ID #LAST

FIG. 5

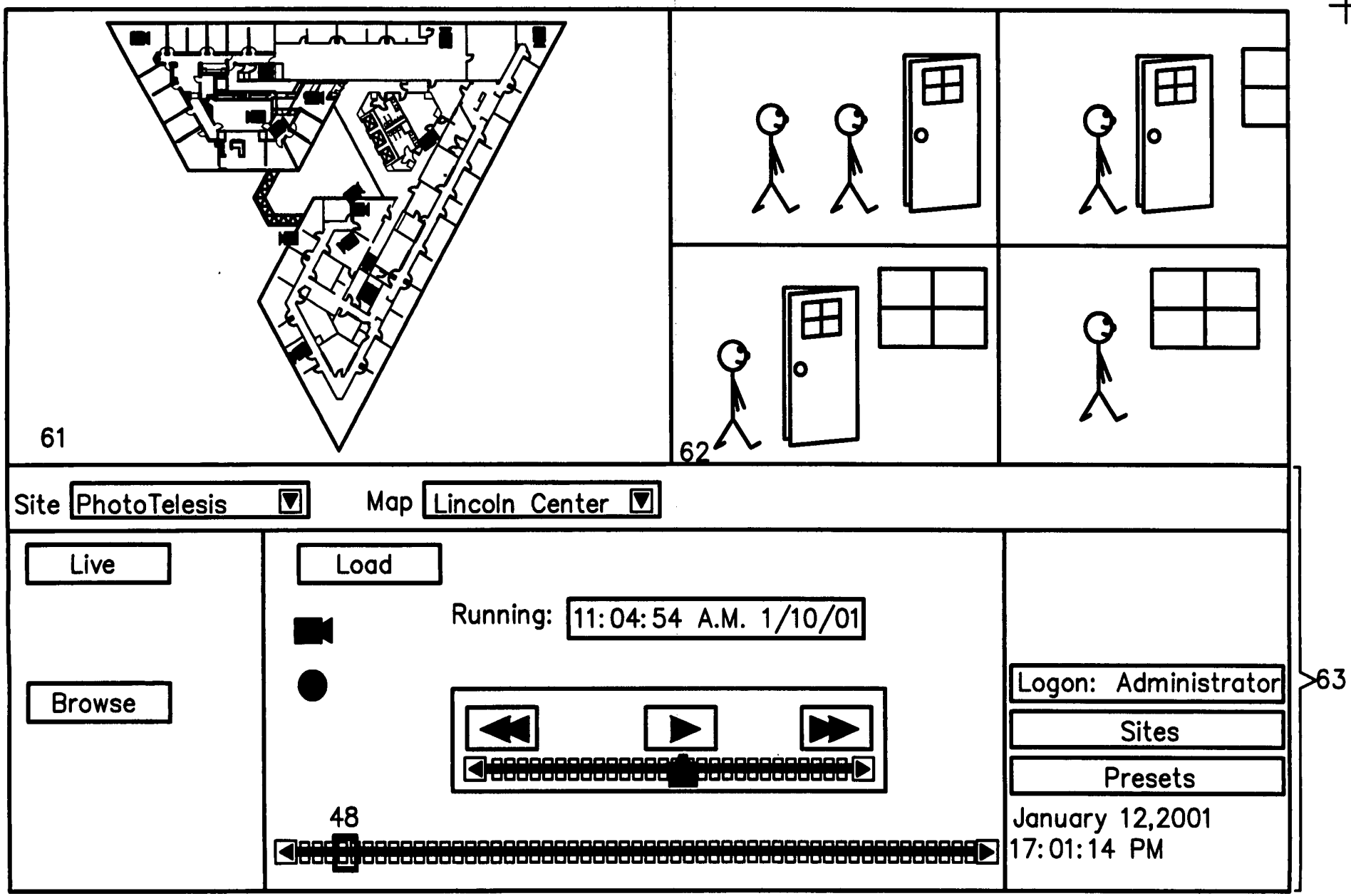

61
62
Site
PhotoTelesis
Map
Lincoln Center
Live
Load
Running:
11:04:54 A.M. 1/10/01
Browse
48
Logon: Administrator
Sites
Presets
January 12,2001
17:01:14 PM
63

FIG. 6

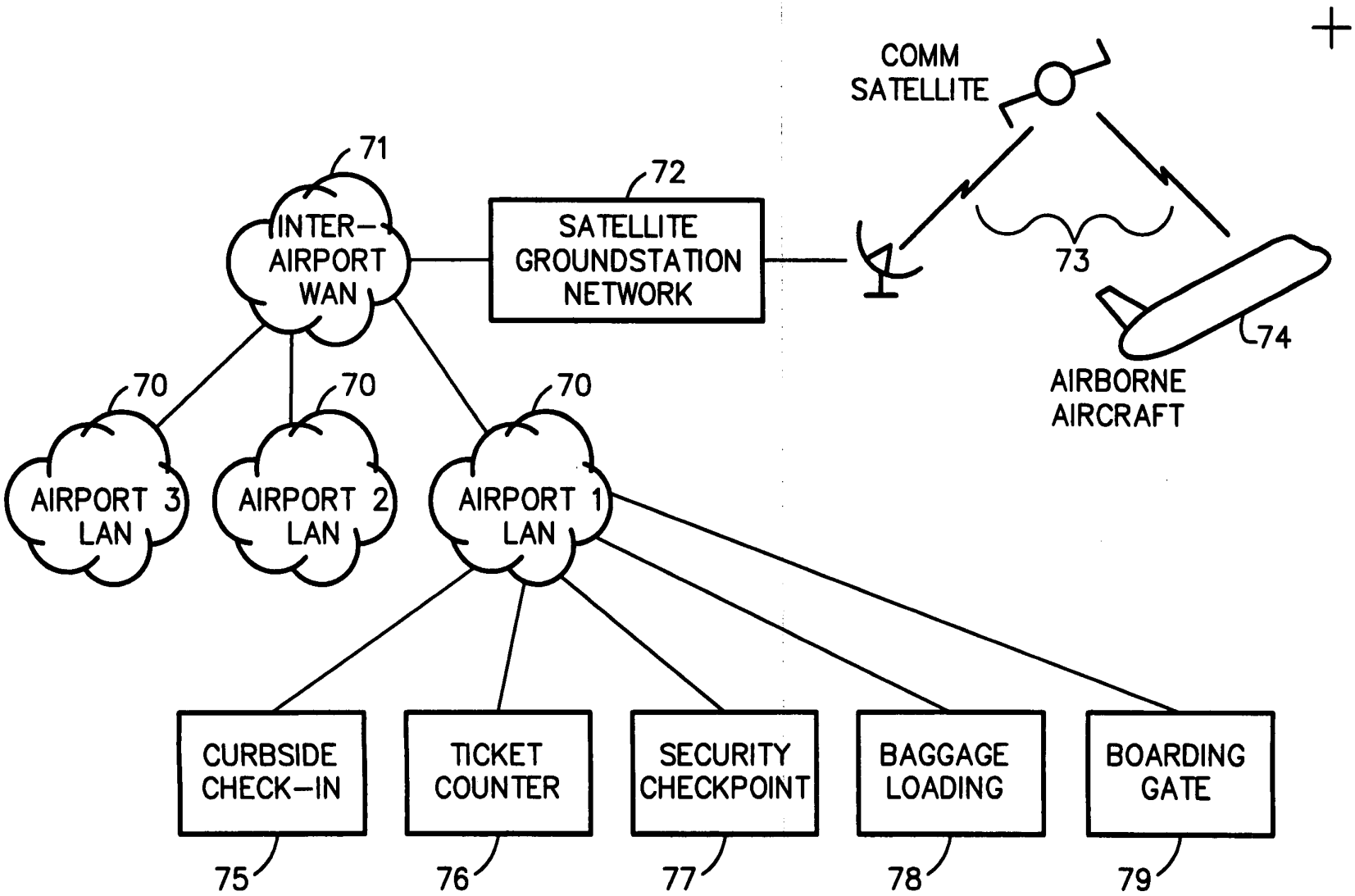

COMM
SATELLITE
71
INTER–
AIRPORT
WAN
72
SATELLITE
GROUNDSTATION
NETWORK
73
74
AIRBORNE
AIRCRAFT
70
70
70
AIRPORT 3
LAN
AIRPORT 2
LAN
AIRPORT 1
LAN
CURBSIDE
CHECK–IN
TICKET
COUNTER
SECURITY
CHECKPOINT
BAGGAGE
LOADING
BOARDING
GATE
75
76
77
78
79

FIG. 7

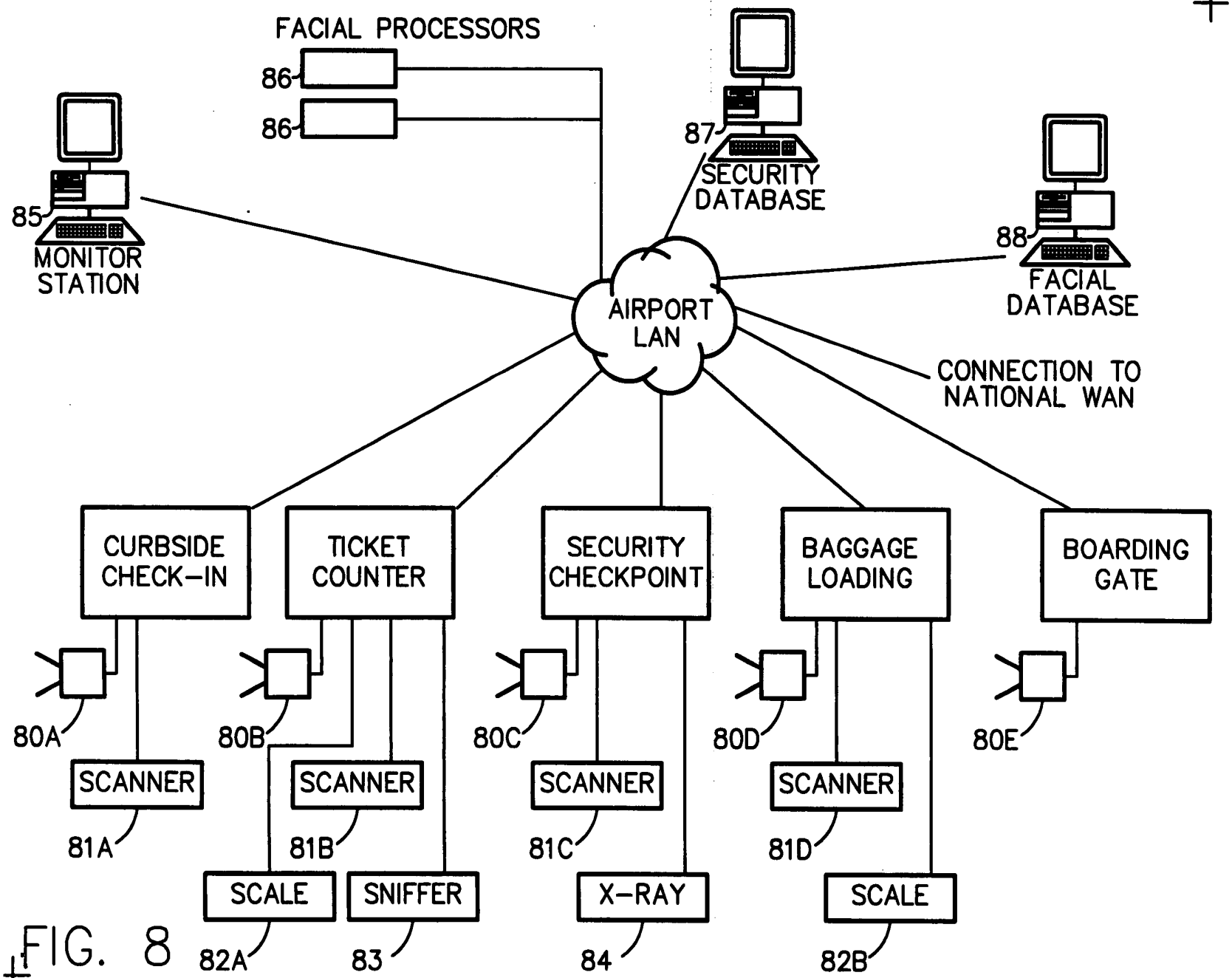

FACIAL PROCESSORS
86
86
87
SECURITY DATABASE
85
MONITOR STATION
88
FACIAL DATABASE
AIRPORT LAN
CONNECTION TO NATIONAL WAN
CURBSIDE CHECK-IN
TICKET COUNTER
SECURITY CHECKPOINT
BAGGAGE LOADING
BOARDING GATE
80A
80B
80C
80D
80E
SCANNER
SCANNER
SCANNER
SCANNER
81A
81B
81C
81D
SCALE
SNIFFER
X-RAY
SCALE
82A
83
84
82B

FIG. 8

DATA CAPTURED INTO SECURITY DATABASE

- PASSENGER IMAGE
- BAGGAGE IMAGE
- PASSENGER FACIAL SIGNATURE
- BAGGAGE WEIGHT
- PHOTO ID IMAGE
- PHOTO ID FACIAL SIGNATURE
- IMAGE OF TICKETS

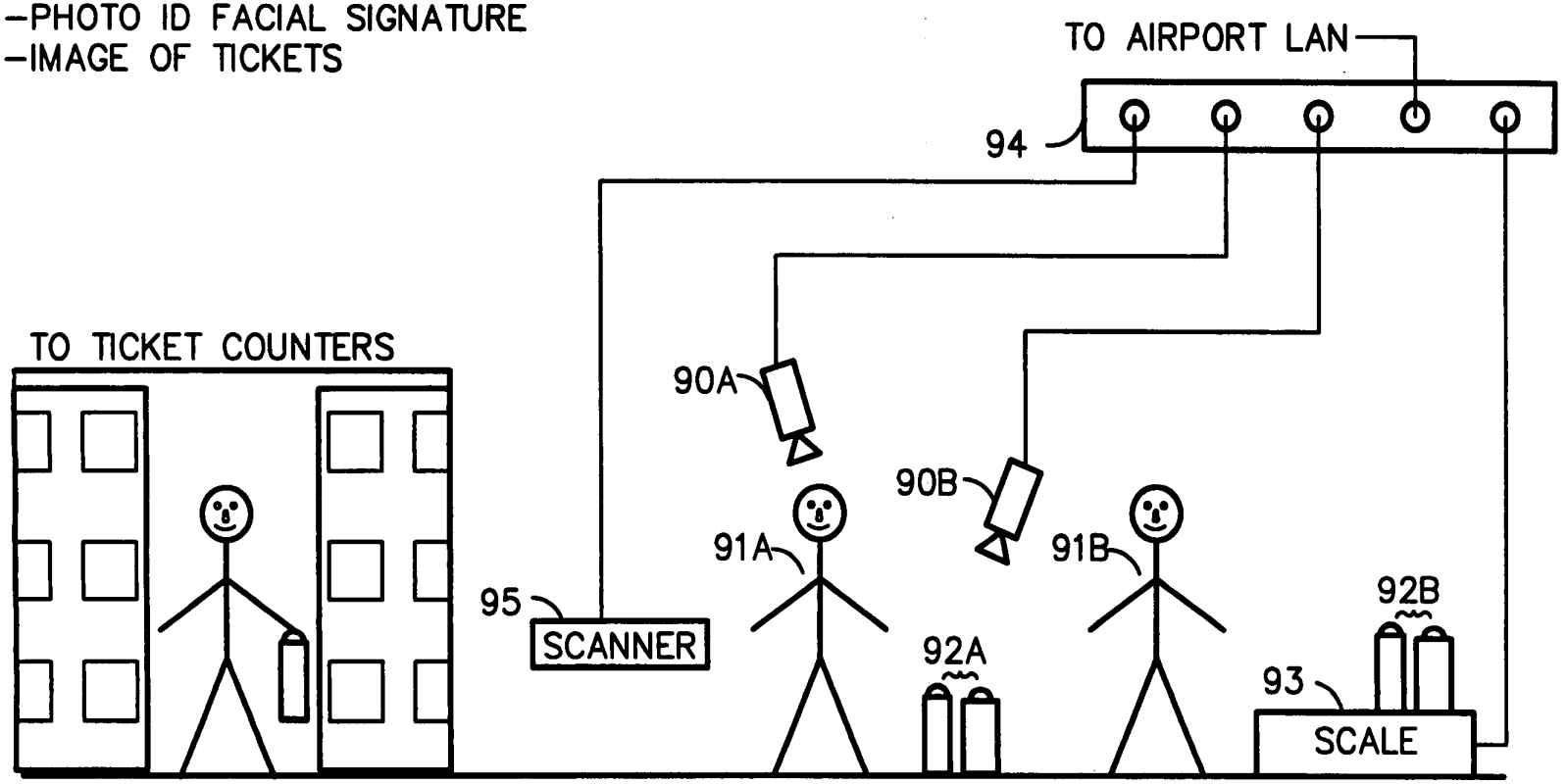
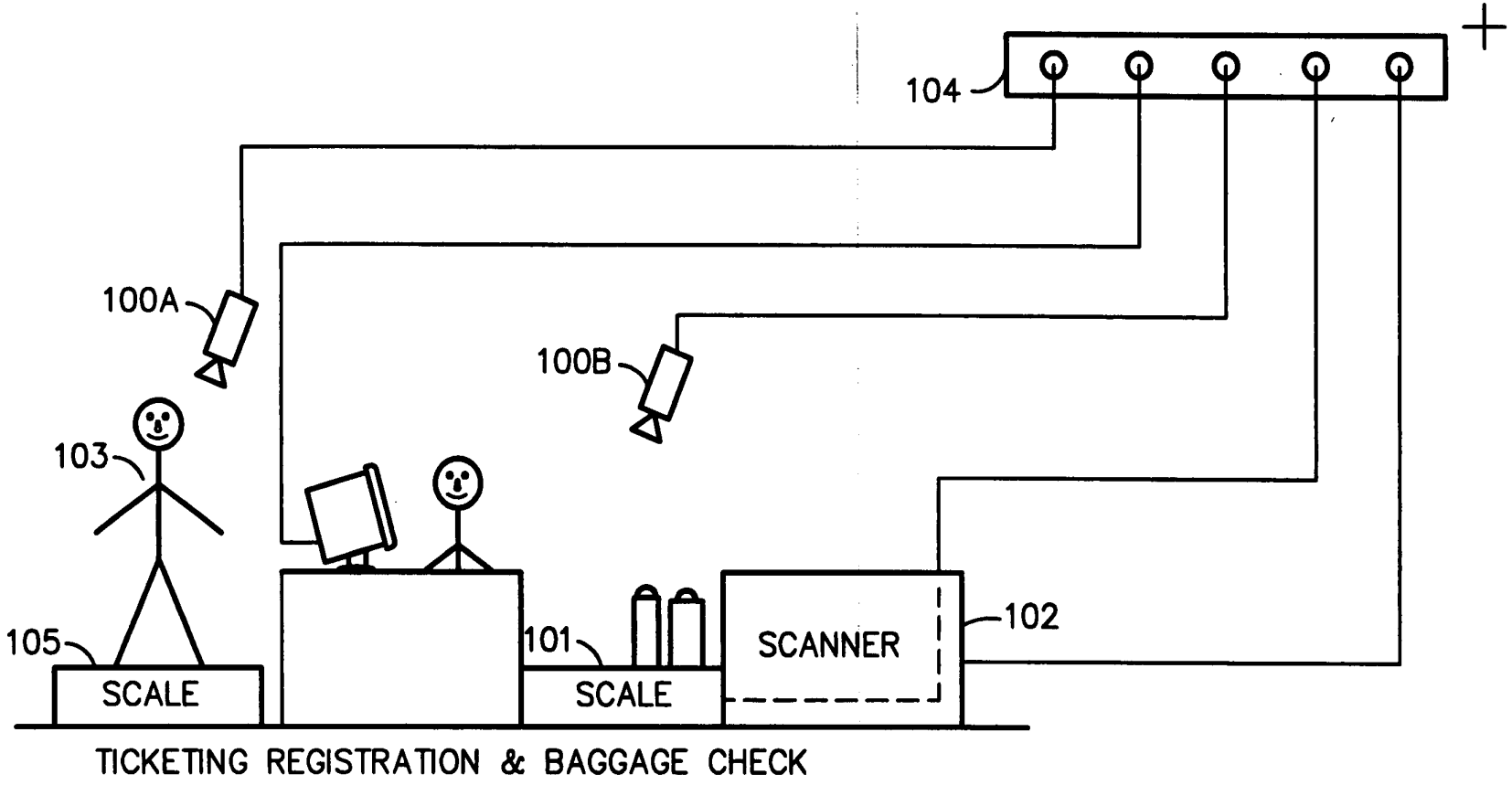


FIG. 9



DATA CAPTURED INTO SECURITY DATABASE

- PASSENGER IMAGE
- BAGGAGE IMAGE
- PASSENGER FACIAL SIGNATURE
- BAGGAGE WEIGHT
- PHOTO ID IMAGE
- PHOTO ID FACIAL SIGNATURE
- IMAGE OF TICKETS
- EXPLOSIVES SCANNER DATA

FIG. 10

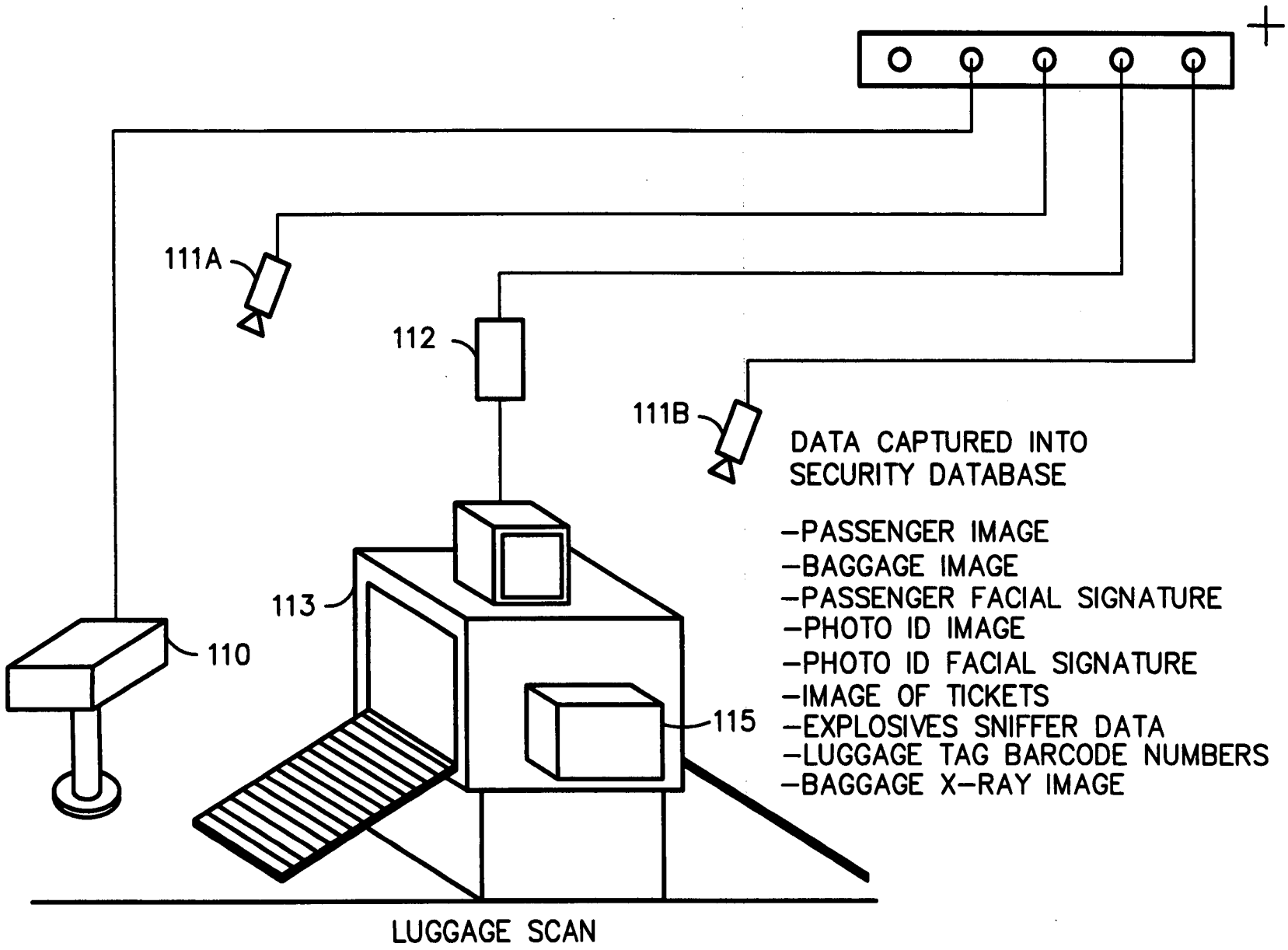

111A
112
111B
DATA CAPTURED INTO
SECURITY DATABASE
-PASSENGER IMAGE
-BAGGAGE IMAGE
-PASSENGER FACIAL SIGNATURE
-PHOTO ID IMAGE
-PHOTO ID FACIAL SIGNATURE
-IMAGE OF TICKETS
-EXPLOSIVES SNIFFER DATA
-LUGGAGE TAG BARCODE NUMBERS
-BAGGAGE X-RAY IMAGE
113
110
115
LUGGAGE SCAN

FIG. 11

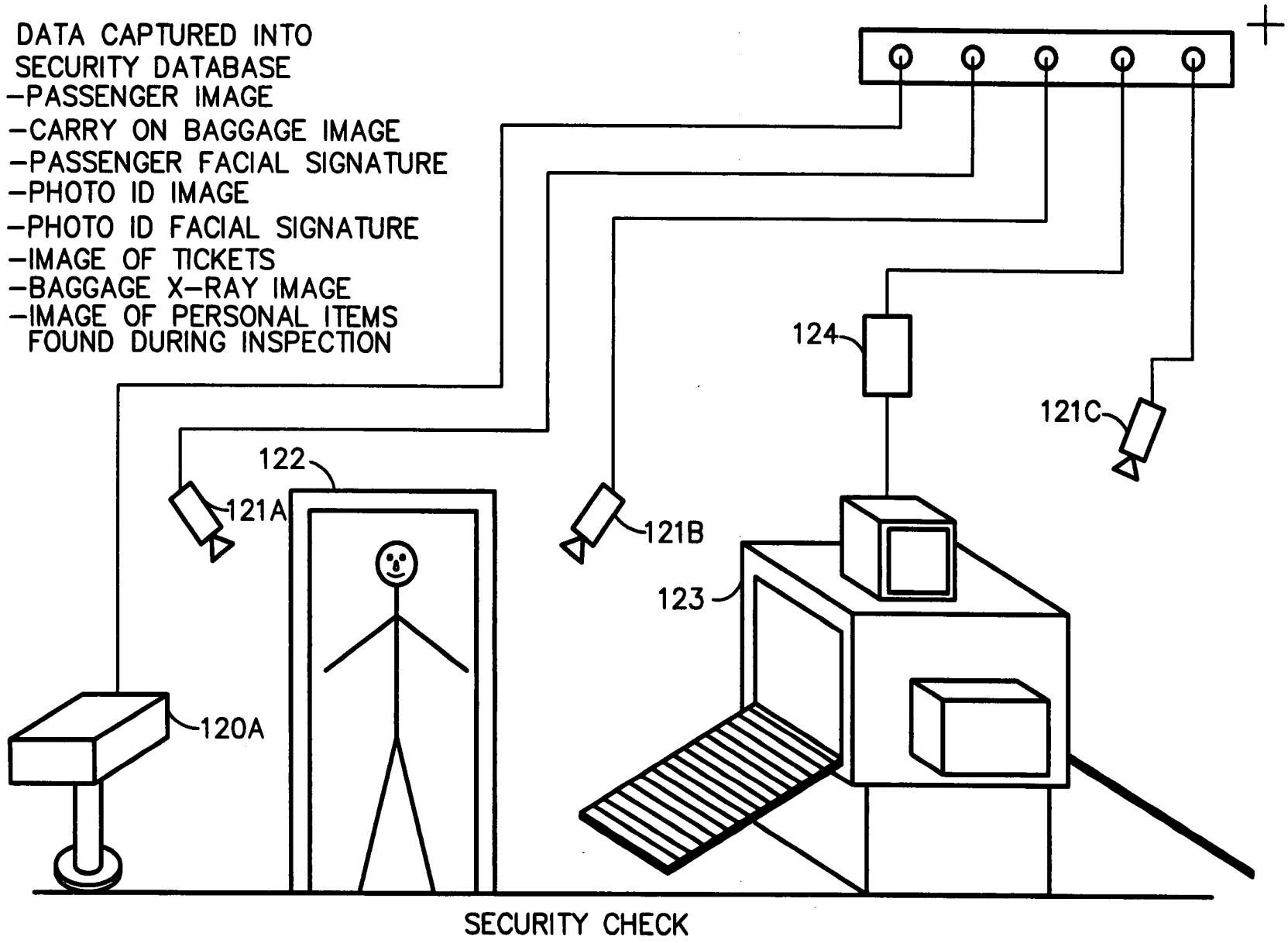

DATA CAPTURED INTO
SECURITY DATABASE
-PASSENGER IMAGE
-CARRY ON BAGGAGE IMAGE
-PASSENGER FACIAL SIGNATURE
-PHOTO ID IMAGE
-PHOTO ID FACIAL SIGNATURE
-IMAGE OF TICKETS
-BAGGAGE X-RAY IMAGE
-IMAGE OF PERSONAL ITEMS
FOUND DURING INSPECTION
124
121C
122
121A
121B
123
120A
SECURITY CHECK

FIG. 12

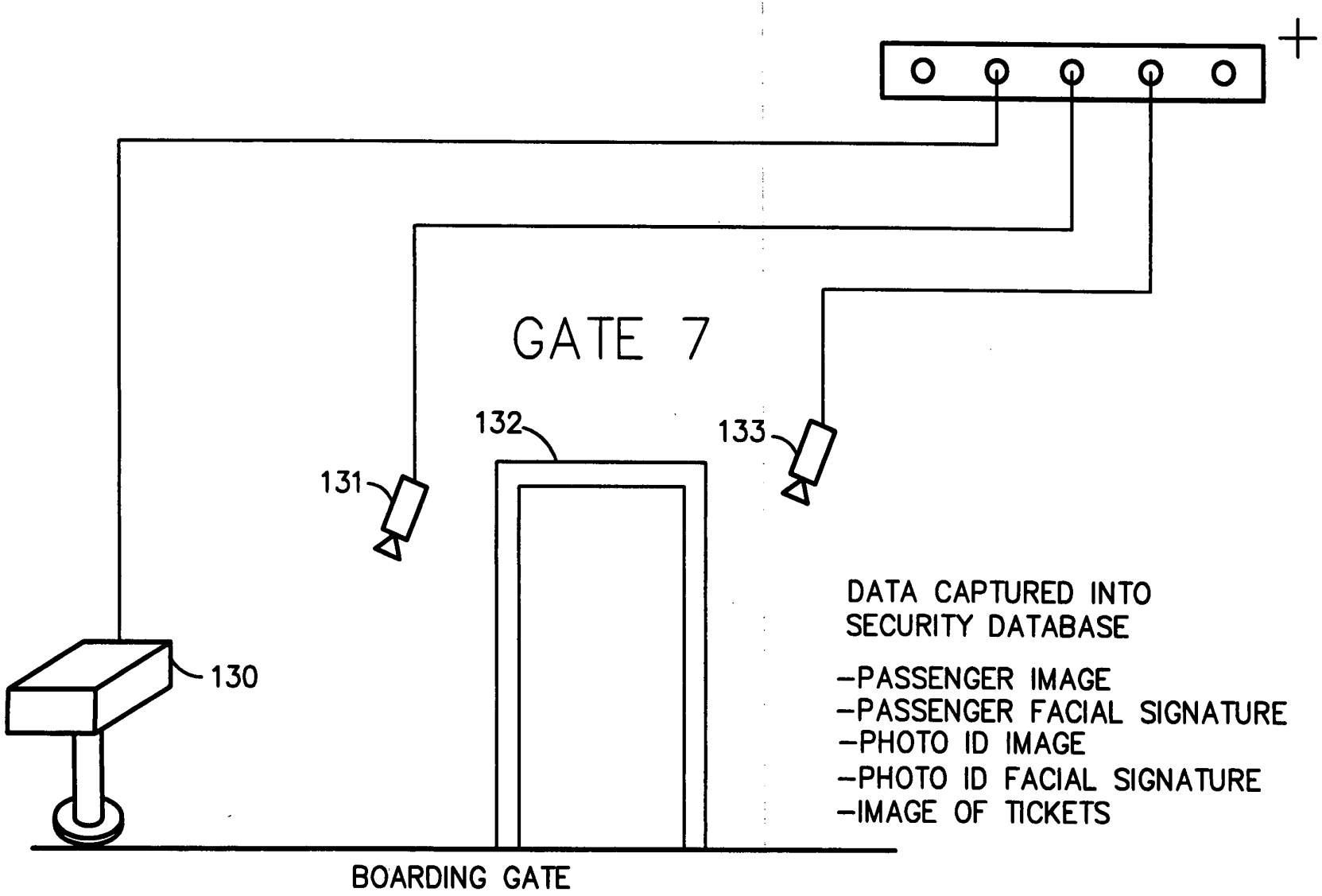
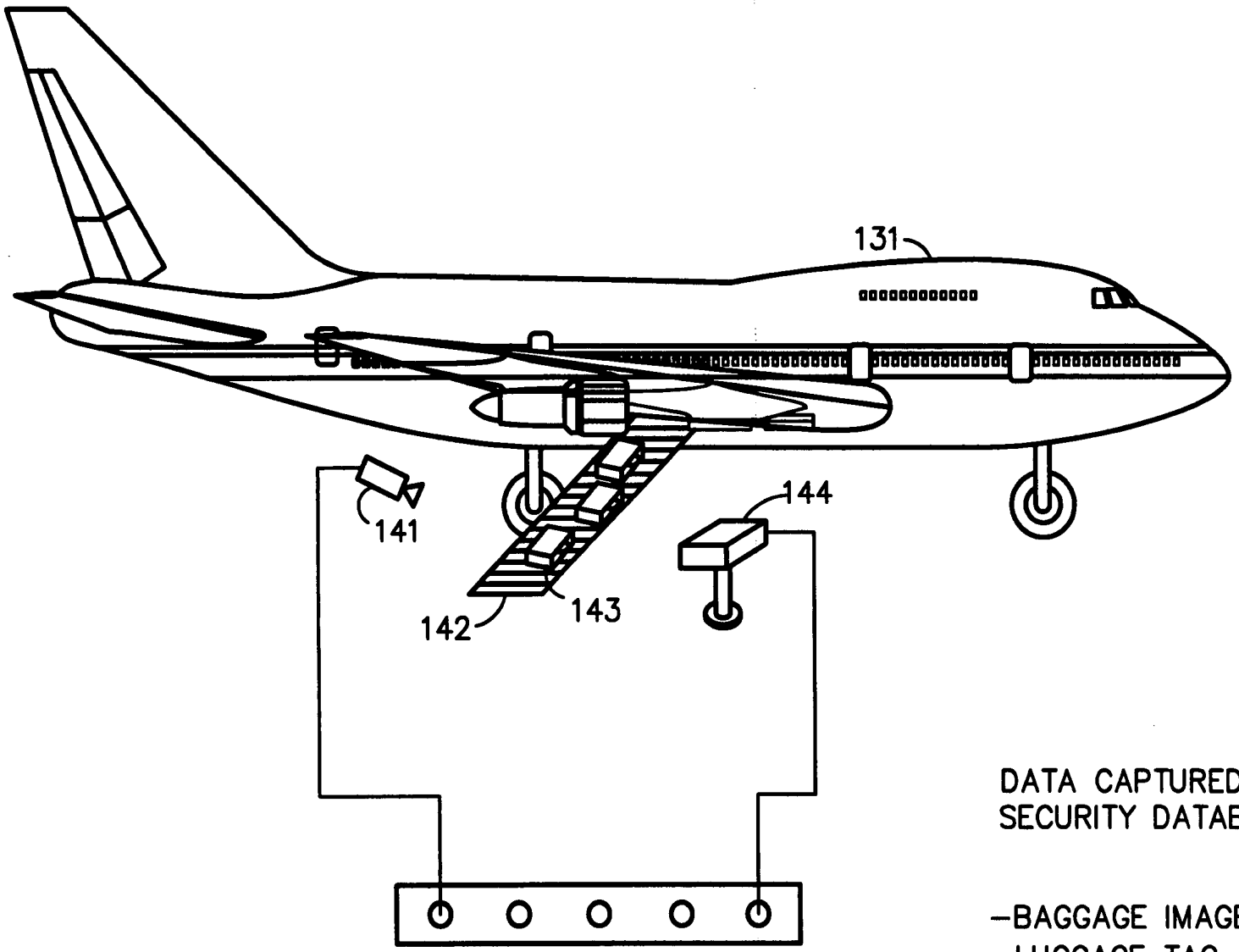

GATE 7
132
133
131
130
DATA CAPTURED INTO
SECURITY DATABASE
-PASSENGER IMAGE
-PASSENGER FACIAL SIGNATURE
-PHOTO ID IMAGE
-PHOTO ID FACIAL SIGNATURE
-IMAGE OF TICKETS
BOARDING GATE

FIG. 13



DATA CAPTURED INTO SECURITY DATABASE

-BAGGAGE IMAGE
-LUGGAGE TAG BARCODE NUMBERS

FIG. 14

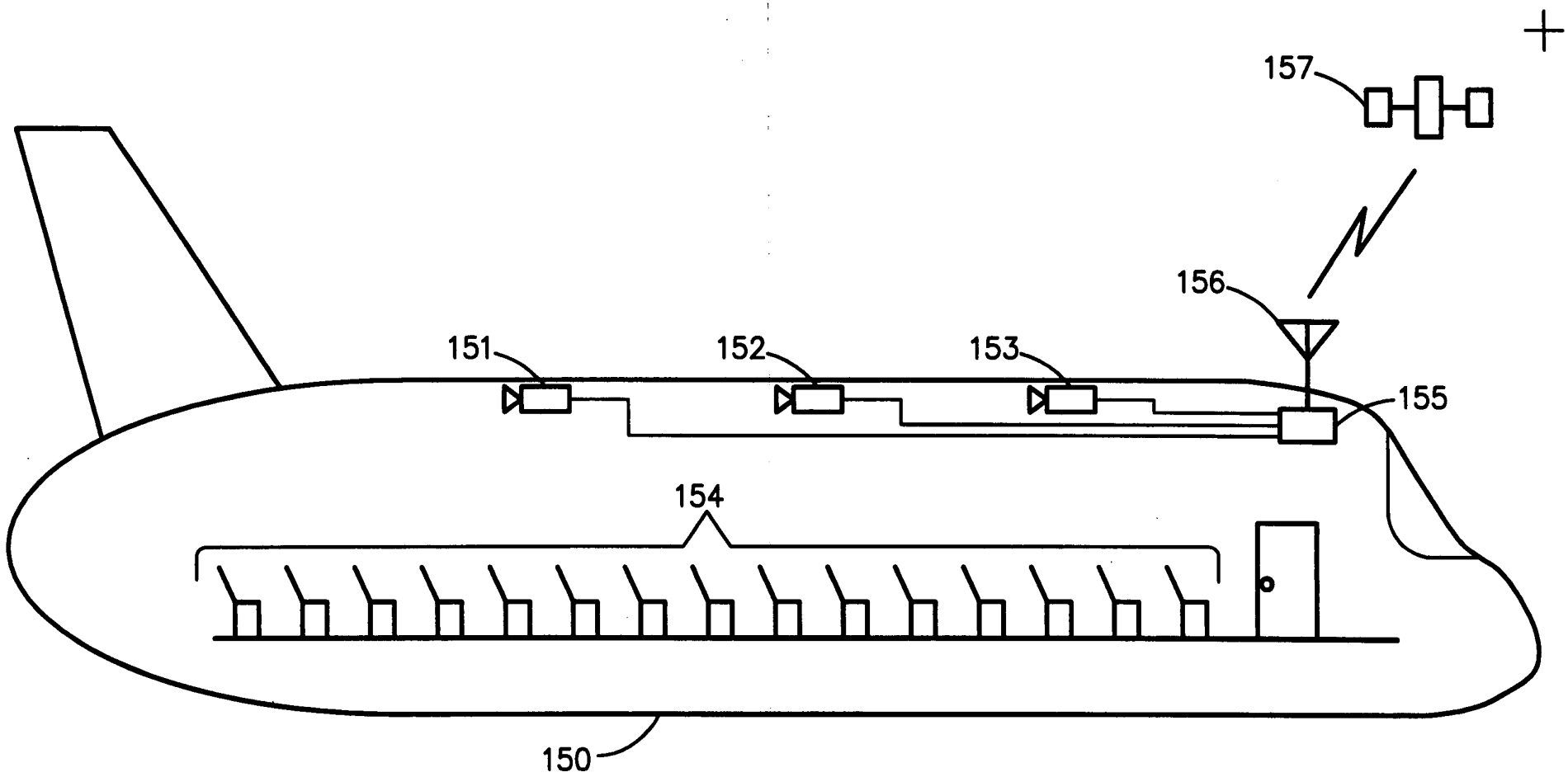


FIG. 15